AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of initiating compression of an Internet Protocol (IP) header of ~~each packet~~packets of a stream of packets to be sent from a source apparatus to a destination apparatus in a packet switched network, said source apparatus being connected to said packet switched network by a first node and said destination apparatus being connected to said packet switched network by a second node, said method comprising the steps of:

modifying, at said first node, the IP header of a first full header packet of the stream of packets from the source apparatus so that a destination address field of the IP header of the first full header packet contains a second node address indicating a location of the second node, the second node address being different than a destination address indicating a location of the destination apparatus;

inserting, at the first node, a routing header in the first full header packet of the stream of packets, said routing header having context identification (CID) information identifying information of the IP header and the destination address indicating the location of the destination apparatus;

transmitting, from the first node to the second node, said first full header packet including the modified IP header and the inserted routing header; and

initiating at the first node header compression of IP headers of packets of the stream of packets subsequent to the first full header packet, when the second node

receives said first full header packet including the modified IP header and the inserted routing header.

2. (Original) A method according to claim 1, wherein each of said first and second nodes is a router.

3. (Original) A method according to claim 1, further comprising the step of:

compressing IP header of each of the subsequent packets when IP header compression has been initiated.

4. (Original) A method according claim 3, wherein said compressing step comprises the step of:

transmitting the subsequent packets including the CID information without an IP header.

5. (Original) A method according to claim 3, wherein said compressing step comprises the step of:

transmitting each of the subsequent packets including the CID information with a compressed IP header which includes unpredictable IP header information.

6. (Currently Amended) A method according claim 1, further comprising

storing information of the IP header of the first full header packet as a context in corresponding relation to the CID information at the second node when the second

node receives said first full header packet including the modified IP header and the inserted routing header.

7. (Original) A method according to claim 6, further comprising the step of:

compressing the IP headers of each of the subsequent packets when IP header compression has been initiated.

8. (Original) A method according to claim 7, wherein said compressing step comprises the step of:

transmitting each of the subsequent packets including the CID information without an IP header.

9. (Original) A method according to claim 7, wherein said compressing step comprises the step of:

transmitting each of the subsequent packets including the CID information with a compressed IP header which includes unpredictable IP header information.

10. (Previously Presented) A method according to claim 6, further comprising the step of:

decompressing at the second node each of the subsequent packets by using the CID information included in the subsequent packet to refer to the stored context.

11. (Previously Presented) A method according to claim 10, further comprising the step of:

transmitting, by the second node, the decompressed subsequent packets to the destination apparatus based on the destination address.

12. (Currently Amended) A method of initiating compression of an Internet Protocol (IP) header of ~~each packet~~packets of a stream of packets to be sent from a source apparatus to a destination apparatus in a packet switched network, said source apparatus being connected to said packet switched network by a first node and said destination apparatus being connected to said packet switched network by a second node, said method comprising the steps of:

modifying, at said first node, the IP header of a first full header packet of the stream of packets from the source apparatus so that a destination address field of the IP header of the first full header packet contains a second node address indicating a location of the second node, the second node address being different than a destination address indicating a location of the destination apparatus;

modifying, at the first node, a routing header in the first full header packet of the stream of packets to include context identification (CID) information identifying information of the IP header and the destination address indicating the location of the destination apparatus;

transmitting, from the first node to the second node, said first full header packet including the modified IP header and the modified routing header; and

initiating at the first node header compression of IP headers of packets of the stream of packets subsequent to the full header packet, when the second node

receives said full header packet including the modified IP header and the modified routing header.

13. (Original) A method according to claim 12, wherein each of said first and second nodes in a router.

14. (Original) A method according to claim 12, further comprising the step of:

compressing IP header of each of the subsequent packets when IP header compression has been initiated.

15. (Original) A method according claim 14, wherein said compressing step comprises the step of:

transmitting the subsequent packets including the CID information without an IP header.

16. (Original) A method according to claim 14, wherein said compressing step comprises the step of:

transmitting each of the subsequent packets including the CID information with a compressed IP header which includes unpredictable IP header information.

17. (Currently Amended) A method according claim 12, further comprising

storing information of the IP header of the first full header packet as a context in corresponding relation to the CID information at the second node when the second node receives said first full header packet including the modified IP header and the modified routing header.

18. (Original) A method according to claim 17, further comprising the step of:

compressing the IP headers of each of the subsequent packets when IP header compression has been initiated.

19. (Original) A method according to claim 18, wherein said compressing step comprises the step of:

transmitting each of the subsequent packets including the CID information without an IP header.

20. (Original) A method according to claim 18, wherein said compressing step comprises the step of:

transmitting each of the subsequent packets including the CID information with a compressed IP header which includes unpredictable IP header information.

21. (Previously Presented) A method according to claim 17, further comprising the step of:

decompressing at the second node each of the subsequent packets by using the CID information included in the subsequent packet to refer to the stored context.

22. (Previously Presented) A method according to claim 21, further comprising the step of:

transmitting, by the second node, the decompressed subsequent packets to the destination apparatus based on the destination address.

23. (Currently Amended) A router for use in a packet switched network for initiating compression of an Internet Protocol (IP) header of ~~each packet~~packets of a stream of packets from the source apparatus to be sent from a source apparatus to a destination apparatus in the packet switched network, comprising:

first apparatus which modifies the IP header of a first full header packet of the stream of packets so that a destination address field of the IP header contains an address indicating a location of another router, the address being different than a destination address indicating a location of the destination apparatus;

second apparatus which inserts a routing header in the first full header packet of the stream of packets, said routing header having Context Identification (CID) information identifying information of the IP header in the destination address indicating the location of said destination apparatus;

third apparatus which transmits to said another router said full header packet including the modified IP header and the inserted routing header, header compression of the IP header of each packet of the stream of packets subsequent to the first full header packet being initiated upon receipt in said another router of said first full header packet including the modified IP header and the inserted routing header.

24. (Original) A router according to claim 23, further comprising:

fourth apparatus which compresses the IP header of each of the subsequent packets when IP header compression has been initiated.

25. (Original) A router according to claim 24, wherein said fourth apparatus comprises:

fifth apparatus which transmits the subsequent packets including the CID information without an IP header.

26. (Original) A router according to claim 24, wherein said fourth apparatus comprises:

sixth apparatus which transmits each of the subsequent packets including the CID information with a compressed header which includes unpredictable IP header information.

27. (Currently Amended) A router according to claim 23, wherein said third apparatus comprises:

seventh apparatus which stores information of the IP header of the first full header packet as a context in corresponding relation to the CID information.

28. (Previously Presented) A router according to claim 27, further comprising:

eighth apparatus which compresses the IP headers of each of the subsequent packets when the IP header compression has been initiated.

29. (Currently Amended) A router according to claim 23, further comprising:

ninth apparatus which stores information of the IP header of said full header packet in corresponding relation to the CID information in response to receipt of said first full header packet including the modified IP header and the inserted router header from said another router.

30. (Currently Amended) A router according to claim 29, further comprising:

tenth apparatus which decompresses packets subsequent to the first full header packet according to the stored CID information.

31. (New) A system for initiating compression of an Internet Protocol (IP) header of packets of a stream of packets comprising:

a packet switched network including a source apparatus and a destination apparatus, said source apparatus being connected to said packet switched network by a first node and said destination apparatus being connected to said packet switched network by a second node,

means for modifying, at said first node, the IP header of a first full header packet of the stream of packets from the source apparatus so that a destination address field of the IP header of the first full header packet contains a second node address indicating a location of the second node, the second node address being different than a destination address indicating a location of the destination apparatus;

means for inserting, at the first node, a routing header in the first full header packet of the stream of packets, said routing header having context identification (CID) information identifying information of the IP header and the destination address indicating the location of the destination apparatus;

means for transmitting, from the first node to the second node, said first full header packet including the modified IP header and the inserted routing header; and

means for initiating at the first node header compression of IP headers of packets of the stream of packets subsequent to the first full header packet, when the second node receives said first full header packet including the modified IP header and the inserted routing header.

32. (New) A method according to claim 1, wherein each of said first and second nodes is a router.